

## REMARKS

### ***A. Overview***

Claims 1-30 are pending. The claims continue to be rejected, primarily for anticipation based on Lewis U.S. Patent '702 and Luhn U.S. Patent '354. Applicant respectfully submits that the invention is an advancement in the art and that the claims define a patentable invention. Reconsideration is respectfully requested.

### ***B. Requirements Regarding the Drawings***

Attached is a red-lined drawing showing proposed minor changes to the drawings. Figure 1 now shows reference sign 19, and Figure 7 now shows reference sign 100, both as requested by the examiner. Approval is respectfully requested.

### ***C. Requirements Regarding the Written Specification***

The abstract has been corrected. The specification has also been corrected to address the objected-to informalities.

### ***D. Claim Objections***

Claim 25 has been amended consistent with the Examiner's suggestion.

### ***E. Section 112 Rejections of Claims***

Claims 1, 5, 7, 23, 24, 25, and 28 were rejected because each contained a double positive recitation of a limitation. Claims 1, 5, 7, 23, 24, 25, and 28 have been amended in a manner, which is believed to overcome the rejection. Claim 2 was also rejected because it contained a double positive recitation of a limitation. Claim 2 has been canceled without prejudice, mooting that rejection.

Claims 16-17 were rejected for having insufficient antecedent basis for the limitation "the raking width." Claim 16 has been amended to give a proper antecedent basis to claims 16-17.

Claim 20 was rejected for having an insufficient antecedent basis for the limitation "each arm." Claim 20 has been amended to provide a proper antecedent basis for "each arm".

Claim 21 was rejected for having an insufficient antecedent basis for the limitation "the rake wheels," "the arms," and "the rake means." Claim 21 has been amended to give a proper antecedent basis to the claim.

Claims 3-23 were rejected for having an insufficient antecedent basis for the limitation "the rake wheels." Claims have been amended to give a proper antecedent basis to all of these claims.

Claim 2 was also rejected for having an insufficient antecedent basis for the limitation "the rake wheels." As mentioned, claim 2 has been canceled, mooted this rejection.

Claim 24 was rejected for having an insufficient antecedent basis for the limitations "the frame work" and "the rake wheels." Claim 24 has been amended to provide a proper antecedent basis.

Claims 20-23 were rejected. The Examiner took the position it was impossible to determine the equivalents of the "means" element. Claim 20 has been amended to overcome this rejection.

Claims 29 and 30 were rejected on the basis the Examiner felt certain elements were unclear in those claims. Claim 29 and 30 have been amended in a manner believed to remedy that rejection.

**F. Section 102 Rejections**

The Examiner has maintained rejection of certain claims on the basis of lack of novelty, citing the Lewis and Luhn U.S. patents, previously of record. Applicant continues to traverse.

Applicant incorporates by reference its prior arguments regarding Lewis and Luhn and believes that neither Lewis nor Luhn substantially identically discloses Applicant's claimed invention. However, to more clearly set forth the distinctiveness of Applicant's invention relative these two patents, the Applicant has revised the claims to further clarify the novel features of the present invention.

It is respectfully submitted that the claims, as amended, are not anticipated by either Lewis or Luhn because the absence from a prior art reference of any claimed element negates anticipation. Minnesota Mining & Mfg. Co. v. Johnson & Johnson Orthopedics, Inc., 976 F.2d 1559 (Fed. Cir. 1992).

**1. Based on Lewis**

Claims 1-5, 16-17, 20, 25, 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis. Applicant respectfully transverses. Independent claim 1 has been amended to recite a ground-driven, non-powered wheel, a wheel rake that can be actuated to a **raised** storage position, a wheel rake that can be selectively actuated between a working and stored position, and a suspension that allows the wheel rakes to follow variations in terrain. The Lewis patent does not disclose any of these features. The Lewis device discloses power driven rakes, it cannot be actuated to a storage position (it must be manually raised), it cannot actuate between a working and stored position, and it does not touch or follow the ground, so it is impossible for the Lewis patent to precisely follow variations in a terrain.

The combination of claim 1 is an improvement on the state of the art. First the fact the present invention is not power driven means no fuel is being used, and therefore, the cost of operation of the present invention is much less than the Lewis invention. Furthermore, the Lewis patent does not anticipate because if no power was supplied to its rakes, its "power rakes" would not rotate. Without rotation the Lewis invention would be rendered completely useless.

Second, because the wheel rakes can be raised by actuation into their storage spots, they can be raised and lowered from the tractor seat by the operator, either to transport the rakes, or importantly, to bale without using the rakes. The power rakes of Lewis and Luhn can be raised manually and stored, but are even with and aligned with the frame, and therefore would interfere with baling.

Third, because the applicant's baler can actuate between a stored and working position, a farmer can lower or raise the rakes on the fly, so to speak. When needed during baling, they can be lowered. When not needed they can be raised, all without leaving the tractor. This can come into play if the operator wants to reduce the amount of material being gathered to bale, or if the material in the field is of the nature that raking is not needed. This feature also allows the farmer to utilize the combination of rake and baler without having to attach and detach the wheel rakes.

Also, because the Applicant's rake can follow the terrain of the land, it is more efficient at picking up material than the prior art. Because the Lewis patent has a baler that does not touch the ground, it is unable to pick up all of the material, especially flattened or low debris such as is many times the case with corn stalk stubble, and especially when there are dips and depressions in the terrain.

Claims 2-5, 16-17, and 20 are dependent from claim 1 and are submitted to be allowable for the reasons expressed in support of claim 1.

Claim 25 is similar to claim 1 but recites the combination of a raking mechanism like claim one with a large bale baler. Therefore, it is submitted claim 25 is allowable over the cited art for the reasons discussed regarding claim 1.

Claim 28 is dependent on claim 25 and submitted to be allowable for the reasons expressed in support of claim 25.

Claim 29 is an independent method claim. It includes similar concepts to claims 1 and 25, e.g., non-powered, ground –contacting wheel rake, independently moveable relative the field to follow the terrain of the field, and selectively actuatable raising and lowering). Lewis is not non-powered, does not touch the ground, and does not have actuated raising and lowering where baling is unobstructed when raised. The method of claim 29 is more cost efficient and allows extra baling; an improvement over the Lewis patent for similar reasons expressed in support of claims 1 and 25. It is therefore respectfully submitted claim 29 is allowable over Lewis as Lewis is explicitly devoid of disclosure of that combination of method steps.

Claim 30 is dependent on claim 29 and is submitted to be allowable for the reasons expressed in support of claim 30.

## **2. Based on Luhn**

Claims 1-5, 16-17, 20, 25 and 28-30 are also rejected under 35 U.S.C. 102(b) as being anticipated by Luhn. Applicant respectfully transverses.

The Luhn patent is a mere improvement over the Lewis patent. The improvement is that Luhn adds self-supporting wheels to the back of its long frame and a hitch that is receptive to different implements. Luhn, like Lewis, uses the power rakes that are non-ground contacting, are not actuated between raised and lowered positions, and do not have independent suspension. It discloses essentially the same thing regarding the rakes as does Lewis. Therefore, for the

reasons expressed in support of the claims relative to the Section 102 rejection based on Lewis, it is respectfully submitted these claims are allowable over Luhn.

**G. § 103 Rejections**

**1. Based on Lewis in view of Kelderman**

Claim 6-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Kelderman. Applicant respectfully transverses.

Because of amendments to claim 1, which claims 6-7 are dependent upon, neither the Lewis patent nor Kelderman patent describe the combination claimed, nor do they collectively teach the limitations of claims 6 and 7. It is therefore submitted claims 6 and 7 are not obvious in light of the rejection.

**2. Based on Lewis in view of Sligter**

Claims 8-9, 13-15, 18-19, and 22-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Sligter. Applicant respectfully transverses.

Though Sligter discloses wheel rakes it does not teach or suggest the combination of these claims. All the claims under this rejection depend from claim 1. Therefore, it is submitted these claims are not obvious.

**3. Based on Lewis**

Claims 10-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis. For the same reasons Lewis lacks the limitations of claim 1, as articulated in the 102 argument based on Lewis, it is submitted that Lewis does not teach these claims, which are dependent from claim 1.

**4. Based on Lewis in view of Sligter and Kuehn**

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Sligter and Kuehn. Applicant respectfully transverses.

Claim 21 discusses adjustability in raking width based on an adjustable mount for the rakes. There is no teaching or suggestion of this in Lewis. Sligter and Kuehn show how wheel rakes can be folded in for transport, but not adjustable mount in seen to vary the raking width of the implement. Lewis' power bar rakes simply do not have the ability to be widened. Thus, there is no teaching of claim 21 by the cited references, either singly or combined.

**5. Based on Lewis in view of Trenkamp**

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Trenkamp. Applicant respectfully transverses.

There is no teaching of Lewis of any additional implement between its rake and the baler. Trenkamp merely discloses a shredder that can be attached to a baler. It does suggest attachment between a rake as claimed by Applicant and a baler. Therefore, it is submitted that claims 26 and 27 are not obvious.

**G. New Claims**

To further claim aspects of the Applicant's invention, new claims 31-38 are submitted. It is submitted that these new claims are clearly supported by the Applicant's specification and are allowable for the same reasons articulated above.

In particular, new independent claim 31 includes most of the concepts of claim 1, as amended. It further includes limitations including "a frame of less than approximately six feet". This distinguishes from Lewis and Luhn, which are very long to accommodate the long powered

bar rakes and to allow those one piece rakes to be manually lifted and stored along the longitudinal axis of the implement. To allow this, the Lewis and Luhn frames have to be longer than the powered bar rakes length. In contrast, Applicant's claimed invention allows the actuated lifting of the wheel rakes. They can be folded up and out of the way. They do not have to be stored along the frame. The frame can therefore be relatively short, which requires fewer materials, is less weight, and makes the combination much more maneuverable. As is apparent with Lewis and Luhn, it would be hard to maneuver, turn, back up, etc. with such a long frame. This is especially true with Luhn, which attaches the baler only by a single pivot point at the back of its long frame.

Claim 31 further includes specific limitations of each wheel rake comprising two sets of at least two wheel rakes, each set of wheel rakes being slightly overlapping. This is explicitly different from Lewis or Luhn.

Claims 32-34 are dependent from claim 32.

Independent claims 35 and 37 are similar to claim 35 and believed allowable over the art of record.

Claims 36 and 38 are dependent from claims 35 and 37 respectively.

#### ***H. Conclusion***

It is respectfully submitted that all matters raised in the action have been addressed and remedied and that the application is in form for allowance. Favorable action is respectfully requested.

Applicant respectfully hereby petitions for a two-month extension of time for response to the Office Action. Accompanying this response is a check in the amount of \$\_\_\_\_.00 for the

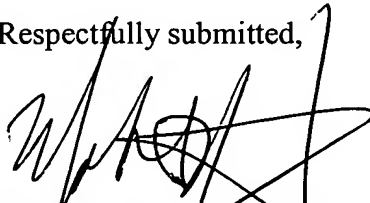


government fee for such extension (\$200.00) and for new claims (\$189.00 for the introduction of 3 new independent claims and 7 new total claims (claim 2 has been canceled).

It is not believed that any additional fee and/or request for extension of time is required for entry of this response. If any such fee and/request is needed, however, please consider this a request therefore and charge any required fee to deposit account #26-0084.

If the Examiner has any questions or this response does not result in allowance of the application, the undersigned respectfully requests the courtesy of a telephone interview to discuss any remaining issues prior to issuance of a further action on this application.

Respectfully submitted,



Mark D. Hansing, 30,643  
McKEE, VOORHEES & SEASE  
Attorneys of Record

801 Grand Avenue - Suite 3200  
Des Moines, Iowa 50309-2721  
515-288-3667 - wrw -  
515-282-6778 FAX

Attachments: Revision Mark Version of Amended Specification and Claims  
Red-lined Drawings (2 sheets—Fig. 1, and Figs. 6 & 7)

**VERSION SHOWING CHANGES TO SPECIFICATION AND CLAIMS**

**IN THE SPECIFICATION**

Please substitute the following paragraphs, as amended:

- Page 12, second partial paragraph through page 13, first partial paragraph:

As previously mentioned, wing-arms 22 and 24 extend forwardly and outwardly from frame 40 (see in particular FIG. 3). Figure 5 shows that a v-shaped component 60, having feet 62 and 64 at opposite ends, is bolted through apertures in rail 42 to both side of frame 40. A plate 66 is bolted to the forward-most facing side of v-shaped member 60. An arm 68 is then attached to plate 66 by aligning tubes 70A-D, which are welded as shown in FIG. 5, in spaced-apart locations on plate 66 and arm 68, in a manner so that when aligned, pivot pin 72 can be placed through all of tubes 70. The pin 72 can then be removably secured in position by a cotter key or other means well within the skill of those skilled in the art. Therefore, tubes 70 and pin 72 essentially act like a piano hinge which would allow arm 68 to pivot upwardly. An upwardly extending ear 74 is welded on top of v-shaped member 60. A similar ear 76 is welded on top of arm 68. A hydraulic cylinder 80 is removably connected by pins 78 and 79 to ears 74 and 76. Actuation of cylinder 80 would therefore lift or pivot arm 68 upwardly about hinge 70/72 when desired (see FIG. 4).

- Page 17, first full paragraph:

Figure 6 does show some specific structure that will now be described. One way arm 108 can pivot relative to the structure of arm 102 is by welding a tubular member 107 to the top of arm section 106 of arm 102. Tube 107 would have opposite open ends and would be placed transverse or perpendicular to the longitudinal axis of arm 108. Plates 109 and 111 would be welded or otherwise secured to opposite sides of arm 108 (preferably at or near the center of its

length). Apertures would be formed in alignment on plates 109 and 111 underneath arm 108. Plates 109 and 111 would be spaced so that they are slightly wider than the length of tube 107 and when the apertures and plates 109 and 111 are aligned with the ends of tube 107 a pivot pin 113 could be inserted there through and secured in position by any number of means, including cotter keys 115 and 117. The bottom of arm 108 would be spaced apart from the top of tube 107 so that all the weight of arm 108 and any attachments is borne by pivot pin 113 and the associated structure with that pivot axis. Other methods of pivotal attachment of arm 108 to the remainder of the implement are possible.

- Page 19, first full paragraph:

Figure 7 illustrates diagrammatically how beam 108 pivots about pivot pin ~~100~~110. Figures 8 and 9 show the practical advantage of this arrangement. When a front rake wheel 26 experiences a rise in the terrain, or a rock or other object (Figure 8), it will follow it and remain in contact. At the same time, this will cause beam 108 to pivot and allows the following rake wheel 26 to stay in contact with the ground. When the forward wheel 26 passes over the bump or object (Fig. 9), and the rear wheel 26 reaches it, beam 108 will pivot the other way and continue to allow both wheels 26 to maintain contact with the ground

- Page 26, Abstract of Disclosure:

An apparatus and method for combined raking and baling of either baleable crops or after-harvest stalks, stubble, and trash. A rake is installed in front of the operating throat of a baler. The rake channels materials into the baler throat in the same pass over the field to effectively improve on the baling efficiency, ~~and/or~~ extend the area of ground coverage for the implement, or both.

## IN THE CLAIMS

Please cancel, without prejudice, claim 2.

Please amend the claims as follows:

1.

A rake attachment for a PTO-driven large bale baler comprising:

a frame ~~member~~ having a front end and a rear end along a longitudinal axis, and a passageway between said front and rear ends for a PTO shaft;

the front end including a connection ~~member~~ capable of adapted for connection of the frame to  
between a motive means and a rake member;

the rear end including a connection ~~member~~ capable of adapted for connection of the frame to  
between the rake member and a said large baler; and

a ground-driven, non-powered wheel rake member connected to and moveable between a  
working position extending extended to a raking width transversely laterally from the  
frame member and a stored position raised from the working position;

an actuator operably connected between the frame and the wheel rake allowing selective  
actuation of the wheel rake between working and stored positions;

a suspension operably associated with the wheel rake to allow the wheel rake to move, over a  
range, independently of the frame when in the working position, to allow the wheel rake  
to follow variations in terrain.

4.

The rake attachment of claim 1 wherein the connection ~~member~~ on the front end of the frame comprises a hitch.

5.

The rake attachment of claim 1 wherein the connection-member on the front end comprises a hitch from a said large bale baler.

6.

The rake attachment of claim 1 wherein the connection-member on the rear-end comprises one or more frame pieces and bolts.

7.

The rake attachment of claim 6 wherein the ~~connection member on the rear~~ comprises frame pieces ~~which are adapted to~~ match up with a large bale baler hitch connection.

8.

The rake attachment of claim 1 wherein the wheel rake comprises a rake-wheel rotatably mounted on an arm attached to the frame member, the wheel having a rotational axis, a diameter and a perimeter, the perimeter including a plurality of spaced apart, generally outwardly extending tines.

9.

The rake attachment of claim 8 wherein the ~~arm member extends forwardly~~ rotational axis of the wheel is at an angle from the longitudinal axis of the frame.

13.

The rake attachment of claim 9 further comprising ~~first and a~~ second ground-driven, non-powered wheel rake comprising a wheel rotatably mounted on a second arm attached to arms extending from opposite sides of the frame.

16.

The rake attachment of claim 1 further comprising, in combination, a large bale baler having a pick-up width, wherein the raking width is ~~greater than~~ extends laterally outside the pick-up width.

18.

The rake ~~attachement~~ attachment of claim 1 wherein the wheel rake ~~member~~ comprises two arms ~~extending~~ able out ~~and forwardly~~ from the frame and a plurality of rake wheels on each arm having planes of rotations ~~generally aligned with the arms~~ at an angle to the longitudinal axis of the frame.

20.

The rake attachment of claim 18 further comprising connections between each arm and the frame to raise and lower ~~at the rake member~~ wheels.

21.

The rake attachment of claim 18 further comprising an adjustable mounting ~~means~~ for between the rake wheels ~~to and~~ the arms ~~for comprising a component adapted to allow~~ adjustability in raking width ~~of the rake means~~ and vertical height of the rake ~~means~~ wheel.

22.

The rake attachment of claim 18 further comprising a pivot ~~means~~ between the frame and the rake wheels to allow the rake wheels to maintain contact with the terrain over variations in the train.

23.

The rake attachment of claim 8 wherein the arm includes a section that can pivot over a range around a pivot pin, at the rake wheel being attached on either side of the pivot pin.

24.

The rake attachment of claim 18 further comprising, in combination, a baler, the baler attached to the connection member at the rear end of the frame-work; the baler having a pick-up width, ~~which is less than the~~ raking width between rake wheels extending outside the pick-up width.

25.

~~In combination a~~ A large bale baler device and a rake member baling apparatus comprising:

a large bale baler having an intake ~~with~~ width and a connection member;

a hitch adaptable for connection to a tractor;

an intermediate framework attachable between the hitch and the connection member on the large bale baler;

at least one arm attached at one end to the intermediate framework and ~~extending~~ ingible from the framework;

at least one raking member operatively attached to the arm ~~and transversely wider than the intake width of the baler,~~ the raking member comprising a ground-driven, non-powered wheel rake;

a suspension member operatively connected between the raking member and the framework to allow independent movement of the raking member relative the framework;

the arm including a mounting member to allow movement of the arm between raised and working positions, the arm and raking member being configured such that when the framework is in operative connection with the hitch and baler and the hitch is connected to the tractor, in the raised position the arm and would not interfere with operation of the

baler, allow backing, allow non-baling transport, and allow storage, and in a working position, the raking member extending laterally from the framework outside the intake width of the baler;

an actuator connected to the framework and a said arm adapted to selectively move the arm by remote activation between the raised and working positions.

26.

The ~~combination~~apparatus of claim 25 further comprising an implement connected between the memberhitch and the baler ~~and/or between the tractor and the rake member.~~

27.

The ~~combination~~apparatus of claim 26 wherein the implement is a shredder.

28.

The ~~combination~~apparatus of claim 25 further ~~comprising in combination with~~ a tractor, which is operatively connected in front of the rake member and baler.

29.

A method of baling comprising:

in a single pass through a field, baling material through a pick-up width of a baler; ~~while at the~~

~~same time raking~~, from behind a motive means, raking material from an area

substantially wideroutside than the pick-up width of the baler with a non-powered,

ground-contacting wheel rake that is independently moveable relative the field to follow

the terrain of the field;

selectively, by operator actuated control, raising the wheel rake a substantial vertical distance

and moving the wheel rake substantially inward to allow unobstructed baling, non-baling

transport, storage, or backing.



30.

The method of claim 29 wherein substantially ~~wider means~~ outside the pick-up width of the baler comprises is at least ~~50~~25% wider than the pickup width.

Please add the following claims:

31.

A rake attachment for a PTO-driven large bale baler comprising:  
a frame of less than approximately six feet in length having a front end and a rear end along a  
longitudinal axis, and a passageway between said front and rear ends for a PTO shaft;  
the front end including a hitch connection adapted for pivotable connection of the frame to a  
motive means;  
the rear end including connection adapted for rigid connection of the frame to a said large baler;  
a ground-driven, non-powered wheel rake connected to and moveable between a working  
position extended to a raking width laterally from the frame and a stored position raised  
from the working position;  
an actuator operably connected between the frame and the wheel rake allowing selective  
actuation of the wheel rake between working and stored positions;  
a suspension operably associated with the wheel rake to allow the wheel rake to move, over a  
range, independently of the frame when in the working position, to allow the wheel rake  
to follow variations in terrain;  
the frame including a PTO extension shaft rotatably supported in the frame and having a first end  
operably connectable to a PTO of a motive means, and a second end operably  
connectable to the baler;

the wheel rake comprising two sets of at least two wheels, each wheel of at least thirty-six inches diameter and attached to the frame and moveable between stored and working positions, each set extendable to a raking width laterally and angularly from the frame on opposite sides of the frame so that in a working position the distance between farthest raking width of both sets of wheels when in working position is at least 50% greater than the intake width of the baler, each wheel of each set slightly overlapping on another;  
in a stored position the wheel rake, frame being less than 8 feet wide and the wheels of the wheel rake at least two feet off the ground.

32.

The rake attachment of claim 31 wherein the frame pieces are adapted to match up with a large bale baler hitch connection.

33.

The rake attachment of claim 31 wherein the wheel rake comprises a wheel rotatably mounted on an arm attached to the frame member, the wheel having a rotational axis, a diameter and a perimeter, the perimeter including a plurality of spaced apart, generally outwardly extending tines.

34.

The rake attachment of claim 33 wherein the rotational axis of the wheel is at an angle from the longitudinal axis of the frame.

35.

A large bale baling apparatus comprising:  
a large bale baler having an intake width and a hitch connection member;

a hitch connectable to the hitch connection member of the baler and adaptable for pivotable connection to a tractor;

an intermediate framework attachable between the hitch and the connection member on the large bale baler, and including a PTO extension shaft supported in the framework to connect a PTO of a tractor with the baler;

first and second sets of at least two non-powered, ground-driven wheel rake wheels operatively attached to the framework by a connection, each wheel having at least a thirty-six inch diameter;

a suspension member operatively connected between the wheels and the framework to allow independent movement of the wheels relative the framework;

the connection allowing movement of the wheels between raised and working positions, in the raised position the wheels would not interfere with operation of the baler, allow backing, allow non-baling transport, and allow storage, and in a working position the wheels extend laterally from the framework outside the intake width of the baler but at an angle to the longitudinal axis of the frame;

an actuator connected to the framework and each said mount adapted to selectively move the wheels by remote activation between the raised and working positions.

36.

The apparatus of claim 35 further in combination with a tractor, which is operatively connected in front of the rake member and baler.

37.

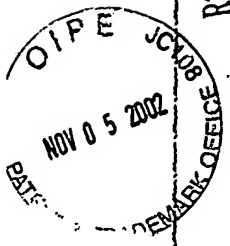
A method of baling comprising:

in a single pass through a field, baling material through a pick-up width of a baler; while, from behind a motive means, raking material from an area substantially outside the pick-up width of the baler with two sets of non-powered, ground-contacting wheel rake, each set comprising two thirty-six inch diameter or greater wheels slightly overlapped in coverage and at an angle to the direction of travel, the sets of wheels being independently moveable relative the field to follow the terrain of the field;

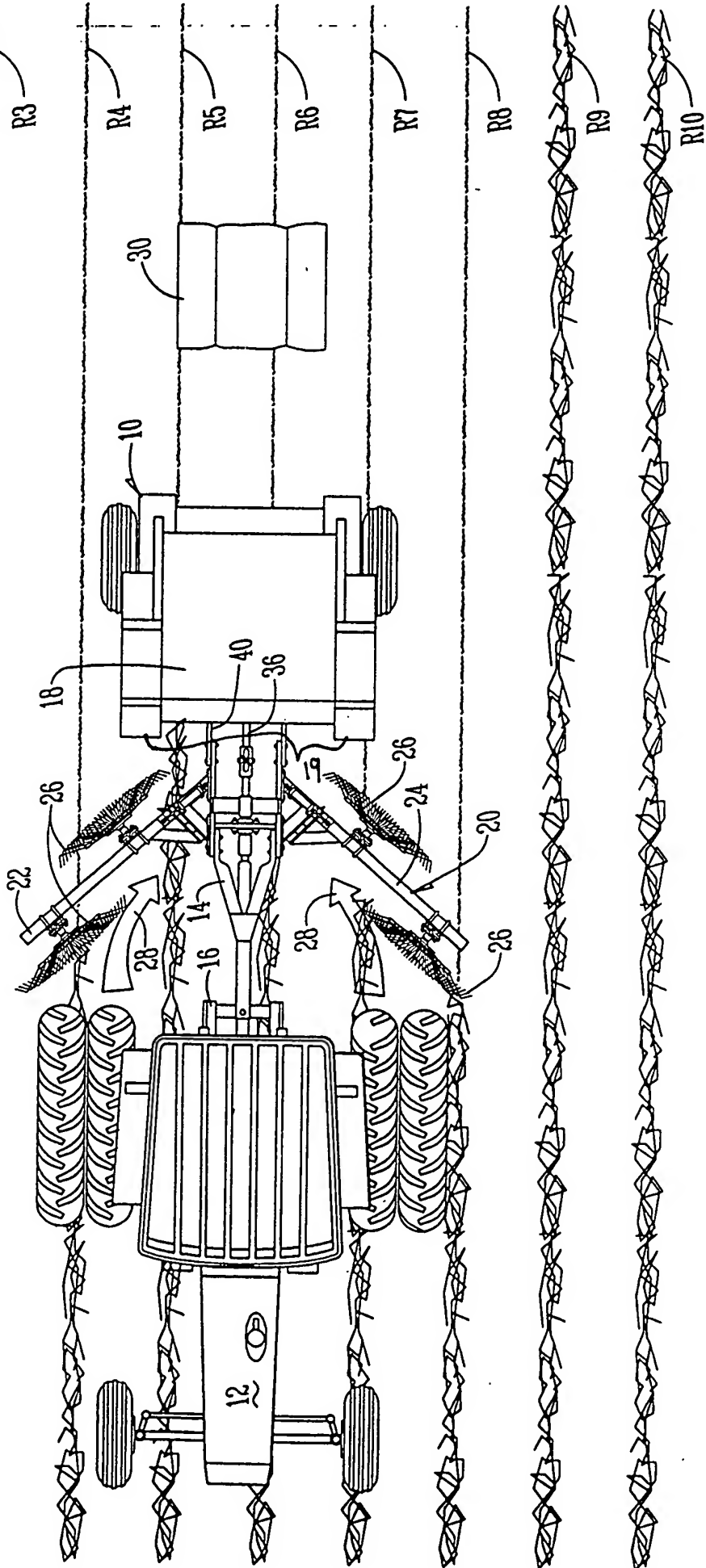
selectively, by operator actuated control, raising the wheel rake a substantial vertical distance and moving the wheel rake substantially inward to allow unobstructed baling, non-baling transport, storage, or backing.

38.

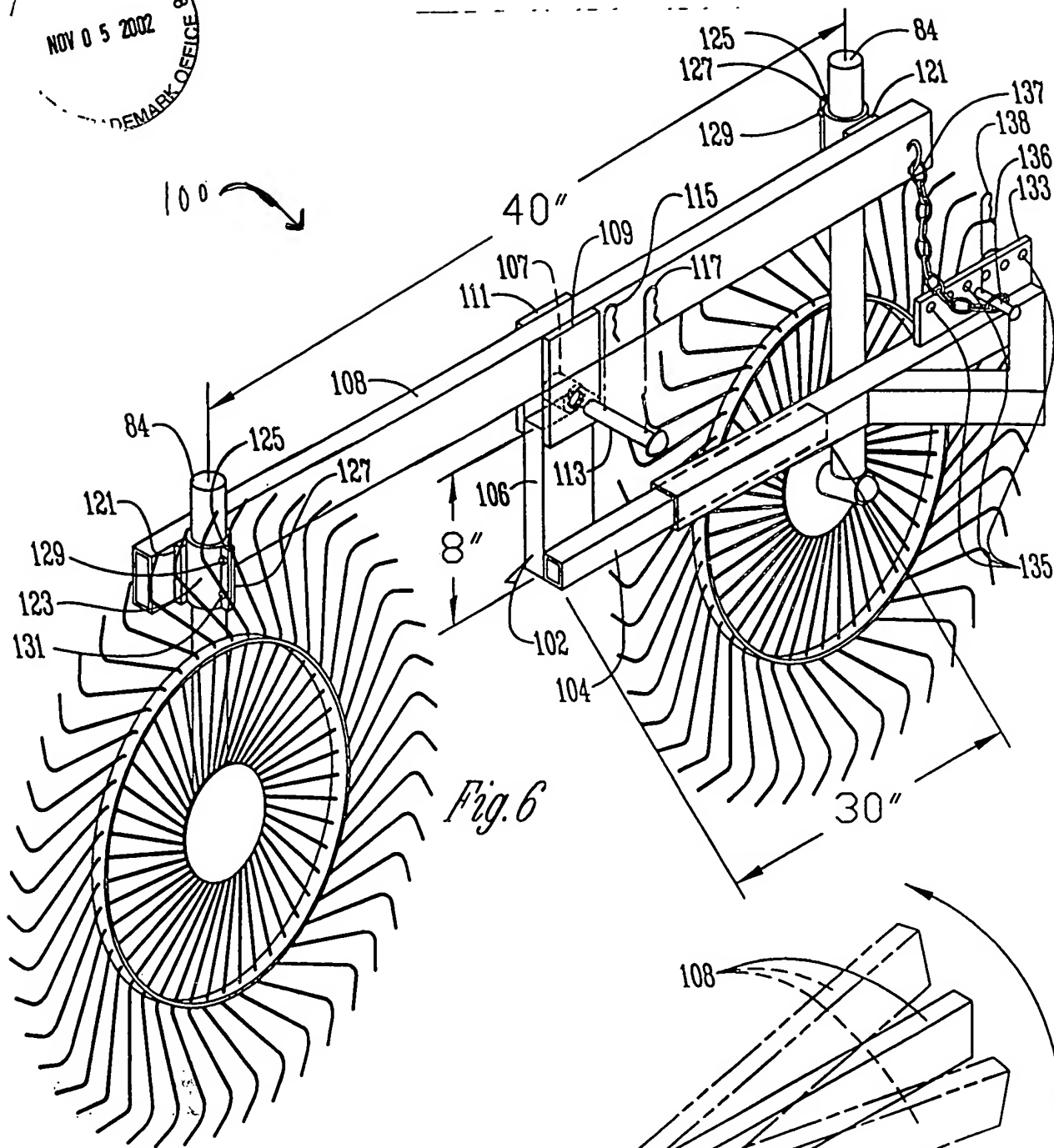
The method of claim 37 wherein the pick-up width of the baler is effectively increased at least 50% wider by the raking wheels.



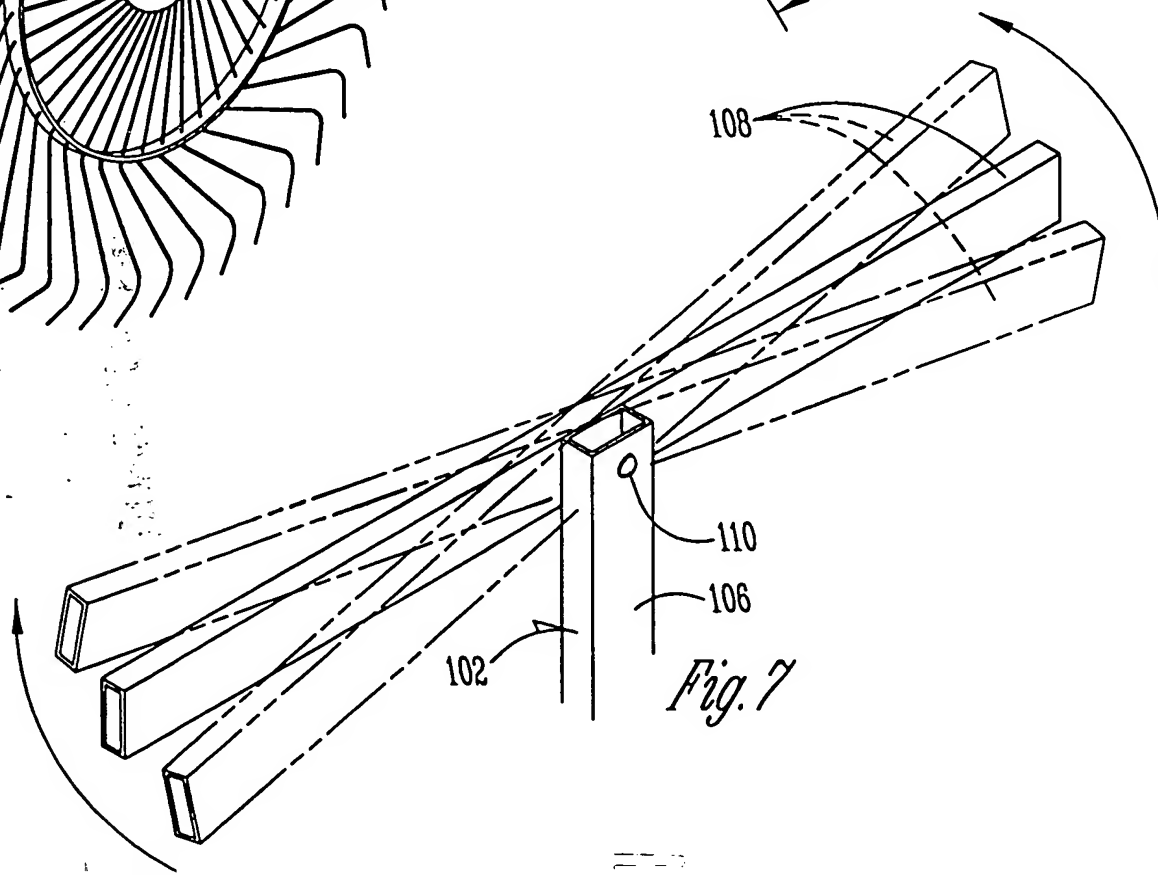
*approved  
 11/15/02*



*Fig. 1*



*Fig. 6*



*Fig. 7*